

**ZINC STATISTICS**

By Carl A. DiFrancesco and Jozef Plachy

[All values in metric tons (t) unless otherwise noted]

Last modification: February 3, 2004

| Year | Primary production | Secondary production | Imports | Exports | Stocks  | Apparent consumption | Unit value (\$/t) | Unit value (98\$/t) | World production |
|------|--------------------|----------------------|---------|---------|---------|----------------------|-------------------|---------------------|------------------|
| 1900 | 112,000            |                      | 0       | 20,000  |         | 90,200               | 97                | 1,900               | 479,000          |
| 1901 | 128,000            |                      | 0       | 3,000   |         | 129,000              | 90                | 1,800               | 510,000          |
| 1902 | 142,000            |                      | 406     | 3,000   |         | 139,000              | 106               | 2,000               | 547,000          |
| 1903 | 144,000            |                      | 183     | 1,000   |         | 140,000              | 119               | 2,200               | 574,000          |
| 1904 | 169,000            |                      | 309     | 9,000   |         | 164,000              | 112               | 2,000               | 629,000          |
| 1905 | 185,000            |                      | 388     | 5,000   |         | 182,000              | 130               | 2,400               | 660,000          |
| 1906 | 204,000            |                      | 926     | 4,000   |         | 200,000              | 135               | 2,500               | 704,000          |
| 1907 | 227,000            | 6,400                | 1,550   | 500     |         | 206,000              | 128               | 2,200               | 738,000          |
| 1908 | 191,000            | 6,500                | 704     | 1,000   |         | 194,000              | 101               | 1,800               | 723,000          |
| 1909 | 232,000            | 8,410                | 8,550   | 300     |         | 246,000              | 119               | 2,200               | 775,000          |
| 1910 | 244,000            | 11,600               | 897     | 3,000   |         | 223,000              | 119               | 2,100               | 810,000          |
| 1911 | 260,000            | 12,700               | 293     | 10,000  |         | 254,000              | 126               | 2,200               | 895,000          |
| 1912 | 307,000            | 23,600               | 9,720   | 7,000   |         | 309,000              | 152               | 2,600               | 971,000          |
| 1913 | 314,000            | 23,600               | 4,690   | 10,000  |         | 268,000              | 123               | 2,030               | 915,000          |
| 1914 | 320,000            | 18,700               | 177     | 70,000  |         | 272,000              | 112               | 1,830               | 795,000          |
| 1915 | 444,000            | 27,000               | 57      | 100,000 | 13,000  | 331,000              | 313               | 5,050               | 760,000          |
| 1916 | 606,000            | 26,100               | 19      | 100,000 | 16,000  | 417,000              | 300               | 4,480               | 882,000          |
| 1917 | 607,000            | 15,300               | 16      | 200,000 | 49,000  | 375,000              | 196               | 2,500               | 901,000          |
| 1918 | 470,000            | 9,000                | 10      | 100,000 | 37,000  | 334,000              | 176               | 1,900               | 747,000          |
| 1919 | 423,000            | 17,900               | 29      | 100,000 | 33,000  | 294,000              | 154               | 1,450               | 598,000          |
| 1920 | 420,000            | 19,400               | 0       | 100,000 | 64,000  | 293,000              | 172               | 1,400               | 655,000          |
| 1921 | 182,000            | 15,900               | 5,990   | 4,000   | 64,000  | 185,000              | 104               | 945                 | 428,000          |
| 1922 | 321,000            | 29,900               | 36      | 30,000  | 15,000  | 338,000              | 126               | 1,220               | 647,000          |
| 1923 | 463,000            | 35,800               | 1       | 30,000  | 25,000  | 405,000              | 148               | 1,410               | 858,000          |
| 1924 | 469,000            | 32,200               | 10      | 70,000  | 19,000  | 407,000              | 139               | 1,320               | 910,000          |
| 1925 | 520,000            | 35,500               | 0       | 70,000  | 12,000  | 454,000              | 169               | 1,580               | 1,030,000        |
| 1926 | 561,000            | 37,000               | 0       | 40,000  | 24,000  | 505,000              | 163               | 1,500               | 1,110,000        |
| 1927 | 538,000            | 38,800               | 35      | 40,000  | 49,000  | 468,000              | 138               | 1,290               | 1,190,000        |
| 1928 | 547,000            | 44,100               | 0       | 20,000  | 44,000  | 568,000              | 133               | 1,270               | 1,270,000        |
| 1929 | 567,000            | 43,000               | 205     | 10,000  | 81,000  | 575,000              | 143               | 1,360               | 1,320,000        |
| 1930 | 452,000            | 31,600               | 255     | 4,000   | 150,000 | 409,000              | 101               | 990                 | 1,260,000        |
| 1931 | 265,000            | 19,600               | 249     | 600     | 130,000 | 336,000              | 80                | 857                 | 904,000          |
| 1932 | 188,000            | 13,400               | 281     | 6,000   | 120,000 | 235,000              | 64                | 762                 | 709,000          |
| 1933 | 279,000            | 27,300               | 1,720   | 1,000   | 100,000 | 318,000              | 89                | 1,120               | 892,000          |
| 1934 | 330,000            | 17,900               | 1,570   | 5,000   | 120,000 | 326,000              | 92                | 1,120               | 1,060,000        |
| 1935 | 382,000            | 26,000               | 4,030   | 1,000   | 83,000  | 429,000              | 96                | 1,140               | 1,210,000        |
| 1936 | 446,000            | 38,300               | 10,600  | 30      | 51,000  | 528,000              | 108               | 1,270               | 1,330,000        |
| 1937 | 505,000            | 46,800               | 33,800  | 200     | 74,000  | 553,000              | 144               | 1,630               | 1,470,000        |
| 1938 | 405,000            | 28,700               | 6,560   | 0       | 140,000 | 382,000              | 102               | 1,180               | 1,420,000        |
| 1939 | 460,000            | 45,700               | 28,100  | 4,000   | 78,000  | 568,000              | 113               | 1,320               | 1,500,000        |
| 1940 | 613,000            | 44,400               | 71,800  | 70,000  | 80,000  | 655,000              | 140               | 1,630               | 1,470,000        |
| 1941 | 746,000            | 54,000               | 36,500  | 80,000  | 83,000  | 751,000              | 165               | 1,830               | 1,590,000        |
| 1942 | 809,000            | 48,300               | 33,000  | 100,000 | 150,000 | 661,000              | 182               | 1,820               | 1,630,000        |
| 1943 | 855,000            | 43,700               | 50,900  | 90,000  | 240,000 | 741,000              | 182               | 1,720               | 1,670,000        |
| 1944 | 789,000            | 44,500               | 57,700  | 20,000  | 270,000 | 806,000              | 182               | 1,690               | 1,470,000        |
| 1945 | 694,000            | 44,700               | 87,800  | 7,000   | 300,000 | 773,000              | 182               | 1,650               | 1,180,000        |
| 1946 | 661,000            | 40,400               | 94,400  | 40,000  | 240,000 | 735,000              | 192               | 1,600               | 1,260,000        |
| 1947 | 728,000            | 54,000               | 65,400  | 100,000 | 140,000 | 713,000              | 232               | 1,690               | 1,450,000        |
| 1948 | 715,000            | 56,500               | 83,900  | 60,000  | 110,000 | 742,000              | 299               | 2,020               | 1,550,000        |
| 1949 | 739,000            | 49,900               | 114,000 | 50,000  | 160,000 | 646,000              | 268               | 1,840               | 1,660,000        |
| 1950 | 765,000            | 60,800               | 141,000 | 10,000  | 66,000  | 877,000              | 306               | 2,070               | 1,970,000        |
| 1951 | 800,000            | 44,100               | 79,900  | 30,000  | 66,000  | 847,000              | 397               | 2,480               | 2,140,000        |

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|------|--------------------|----------------------|---------|---------|---------|----------------------|-------------------|---------------------|------------------|
| 1952 | 821,000            | 50,000               | 103,000 | 50,000  | 160,000 | 774,000              | 357               | 2,190               | 2,230,000        |
| 1953 | 831,000            | 48,000               | 207,000 | 20,000  | 240,000 | 894,000              | 239               | 1,460               | 2,360,000        |
| 1954 | 728,000            | 61,700               | 145,000 | 20,000  | 210,000 | 802,000              | 236               | 1,430               | 1,880,000        |
| 1955 | 874,000            | 59,900               | 177,000 | 20,000  | 150,000 | 1,020,000            | 271               | 1,650               | 2,660,000        |
| 1956 | 892,000            | 65,400               | 222,000 | 8,000   | 160,000 | 915,000              | 297               | 1,780               | 2,810,000        |
| 1957 | 894,000            | 65,800               | 244,000 | 10,000  | 220,000 | 849,000              | 251               | 1,460               | 2,900,000        |
| 1958 | 709,000            | 42,300               | 168,000 | 2,000   | 250,000 | 788,000              | 227               | 1,280               | 2,730,000        |
| 1959 | 725,000            | 52,500               | 149,000 | 10,000  | 240,000 | 867,000              | 253               | 1,410               | 2,740,000        |
| 1960 | 725,000            | 62,400               | 110,000 | 70,000  | 230,000 | 796,000              | 286               | 1,570               | 2,790,000        |
| 1961 | 768,000            | 50,100               | 114,000 | 50,000  | 220,000 | 845,000              | 255               | 1,390               | 3,250,000        |
| 1962 | 798,000            | 53,400               | 123,000 | 30,000  | 200,000 | 936,000              | 256               | 1,380               | 3,410,000        |
| 1963 | 810,000            | 54,700               | 120,000 | 30,000  | 130,000 | 1,000,000            | 265               | 1,410               | 3,490,000        |
| 1964 | 866,000            | 65,000               | 122,000 | 20,000  | 130,000 | 1,100,000            | 299               | 1,570               | 3,690,000        |
| 1965 | 902,000            | 75,900               | 140,000 | 5,000   | 160,000 | 1,230,000            | 320               | 1,660               | 3,950,000        |
| 1966 | 930,000            | 75,500               | 254,000 | 1,000   | 180,000 | 1,290,000            | 320               | 1,610               | 4,080,000        |
| 1967 | 852,000            | 66,700               | 201,000 | 20,000  | 170,000 | 1,130,000            | 305               | 1,490               | 4,130,000        |
| 1968 | 926,000            | 72,500               | 276,000 | 30,000  | 150,000 | 1,230,000            | 298               | 1,400               | 4,630,000        |
| 1969 | 944,000            | 64,000               | 295,000 | 8,000   | 150,000 | 1,260,000            | 323               | 1,430               | 4,970,000        |
| 1970 | 796,000            | 70,000               | 236,000 | 300     | 200,000 | 1,080,000            | 338               | 1,420               | 4,830,000        |
| 1971 | 695,000            | 73,400               | 294,000 | 10,000  | 130,000 | 1,140,000            | 356               | 1,430               | 4,740,000        |
| 1972 | 574,000            | 66,900               | 469,000 | 9,000   | 140,000 | 1,290,000            | 391               | 1,520               | 5,130,000        |
| 1973 | 529,000            | 75,500               | 536,000 | 10,000  | 130,000 | 1,360,000            | 456               | 1,670               | 5,330,000        |
| 1974 | 504,000            | 71,200               | 493,000 | 20,000  | 230,000 | 1,170,000            | 793               | 2,620               | 5,610,000        |
| 1975 | 397,000            | 52,500               | 340,000 | 6,000   | 170,000 | 839,000              | 859               | 2,600               | 5,010,000        |
| 1976 | 453,000            | 62,200               | 631,000 | 3,000   | 200,000 | 1,030,000            | 816               | 2,340               | 5,610,000        |
| 1977 | 408,000            | 45,900               | 504,000 | 200     | 170,000 | 1,000,000            | 758               | 2,040               | 5,810,000        |
| 1978 | 407,000            | 34,800               | 622,000 | 700     | 140,000 | 1,050,000            | 683               | 1,710               | 5,880,000        |
| 1979 | 472,000            | 53,200               | 524,000 | 300     | 150,000 | 1,000,000            | 822               | 1,850               | 6,260,000        |
| 1980 | 340,000            | 29,400               | 410,000 | 300     | 130,000 | 811,000              | 825               | 1,630               | 6,050,000        |
| 1981 | 347,000            | 50,200               | 612,000 | 300     | 200,000 | 841,000              | 983               | 1,760               | 6,080,000        |
| 1982 | 228,000            | 74,300               | 456,000 | 300     | 160,000 | 795,000              | 848               | 1,430               | 5,890,000        |
| 1983 | 236,000            | 69,400               | 618,000 | 400     | 150,000 | 933,000              | 913               | 1,490               | 6,250,000        |
| 1984 | 253,000            | 78,100               | 639,000 | 800     | 140,000 | 980,000              | 1,070             | 1,680               | 6,530,000        |
| 1985 | 261,000            | 72,600               | 611,000 | 1,000   | 120,000 | 961,000              | 890               | 1,350               | 6,790,000        |
| 1986 | 253,000            | 62,900               | 665,000 | 2,000   | 100,000 | 999,000              | 838               | 1,250               | 6,690,000        |
| 1987 | 261,000            | 83,000               | 706,000 | 1,000   | 96,000  | 1,050,000            | 924               | 1,330               | 7,020,000        |
| 1988 | 241,000            | 88,000               | 749,000 | 500     | 86,000  | 1,090,000            | 1,330             | 1,830               | 7,160,000        |
| 1989 | 260,000            | 98,000               | 712,000 | 6,000   | 91,000  | 1,060,000            | 1,810             | 2,380               | 7,240,000        |
| 1990 | 263,000            | 96,000               | 632,000 | 1,000   | 87,000  | 991,000              | 1,640             | 2,050               | 7,180,000        |
| 1991 | 253,000            | 122,000              | 549,000 | 1,000   | 79,000  | 933,000              | 1,160             | 1,390               | 7,310,000        |
| 1992 | 272,000            | 128,000              | 644,000 | 1,000   | 82,000  | 1,040,000            | 1,290             | 1,500               | 7,260,000        |
| 1993 | 240,000            | 141,000              | 724,000 | 1,000   | 91,000  | 1,050,000            | 1,020             | 1,150               | 7,360,000        |
| 1994 | 217,000            | 139,000              | 793,000 | 6,000   | 80,000  | 1,180,000            | 1,090             | 1,200               | 7,330,000        |
| 1995 | 232,000            | 131,000              | 856,000 | 3,000   | 78,000  | 1,230,000            | 1,230             | 1,320               | 7,280,000        |
| 1996 | 226,000            | 140,000              | 827,000 | 2,000   | 76,000  | 1,210,000            | 1,130             | 1,170               | 7,480,000        |
| 1997 | 226,000            | 140,000              | 876,000 | 4,000   | 88,000  | 1,260,000            | 1,420             | 1,440               | 7,530,000        |
| 1998 | 234,000            | 134,000              | 879,000 | 2,000   | 68,000  | 1,290,000            | 1,130             | 1,130               | 7,570,000        |
| 1999 | 241,000            | 131,000              | 966,000 | 2,000   | 84,000  | 1,340,000            | 1,180             | 1,150               | 7,970,000        |
| 2000 | 228,000            | 143,000              | 915,000 | 3,000   | 77,000  | 1,330,000            | 1,230             | 1,160               | 8,790,000        |
| 2001 | 203,000            | 108,000              | 813,000 | 1,180   | 74,700  | 1,150,000            | 969               | 892                 | 8,930,000        |
| 2002 | 182,000            | 113,000              | 874,000 | 1,160   | 77,600  | 1,170,000            | 852               | 772                 | 8,360,000        |

## **Zinc Worksheet Notes**

### **Data Sources**

The sources of data for the zinc worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey (USGS)—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Mineral Commodity Summaries (MCS); Statistical Compendium (SC); and USBM Open-File Report 72-92 (Jolly, 1992) (OFR 72-92). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

### **Primary Production**

Primary U.S. zinc production data report the amount of refined zinc in slab form. Data were from the SC for the years 1900–83, 1985–86, and 1988–90, the MCS for the years 1991–97 and 1999–2002, (OFR 72-92) for the years 1984 and 1987, and the MYB for the year 1998.

### **Secondary Production**

Secondary production includes secondary from old scrap (scrap including—but not limited to—metal articles that have been discarded after serving a useful purpose). Data were from the SC for 1907–34, 1935–40, 1941–87, and 1989–90, the MCS for the years 1991–95, 1997, and 1999–2002, (OFR 72-92) for 1988, and the MYB for the years 1996 and 1998. Blank cells in the worksheet indicate that data were not available for the years 1900–06.

### **Imports**

Import data report the amounts of slab zinc imported into the United States in various shapes and forms. Import data exclude all manufactured zinc products. Data were from the SC for the years 1900–01, 1903–09, 1911–53, 1955–61, 1963–76, and 1978–90, the MCS for 1992–97 and 1999–2002, (OFR 72-92) for the years 1902, 1910, 1954, 1962, and 1977 and the MYB for the years 1991 and 1998.

### **Exports**

Export data report the amounts of slab zinc exported from the United States in various shapes and forms. Export data exclude all manufactured zinc products. Data were from the SC for the years 1900–02, 1904–09, 1911–65, 1967–70, 1972–78, and 1980–90, the MCS for the years 1992–2002, and (OFR 72-92) for the years 1903, 1910, 1966, 1971, and 1979 and the MYB for the year 1991.

### **Stocks**

Stocks are the sum of available data on industry and consumer stocks. Blank cells in the worksheet indicate that data were not available for the years 1900–14. Data were from the SC for the years 1928–39, 1941–44, 1946–58, 1961–72, 1974–78, 1980–83, and 1985–86, MYB for the years 1915–27, 1940, 1945, 1959–60, 1973, 1979, 1984, and 1987–98, and the MCS for the years 1999–2002.

### **Apparent Consumption**

U.S. apparent consumption of slab zinc came from the SC, which lists U.S. reported consumption of slab zinc for the years 1900–17, 1919–45, 1947–82 and U.S. apparent consumption of slab zinc for the years 1984–87, and 1989; for the years 1991 and 1994–97, and 1999–2002, data came from the MCS. Data for the years 1918, 1946, 1983, 1988, and 1990 were taken from the (OFR 72-92), and the years 1992–93 and 1998 were from the MYB.

### **Unit Value (\$/t)**

Unit value is the value in dollars of 1 metric ton (t) of zinc apparent consumption. Unit value (\$/t) was estimated from a price series in the SC for the period 1900–90, from U.S. prices for slab zinc from the MCS for the period 1991–93, 1995–96, 1999–2002, and MYB for 1994 and 1997–98.

### **Unit Value (98\$/t)**

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

### **World Production**

World production data were for zinc content of mine and mill production. Data were from the MYB and MR.

### **References**

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